

REMARKS

The Examiner has rejected claims 7-13 and 16-19 under 35 U.S.C. § 112 because of the duplicate reference to "a top bearing bracket" in claim 7. Claim 7 has been amended to correct this typographical error, and thus, it is believed that the 35 U.S.C. § 112 rejection has been overcome.

The Examiner has also rejected independent claims 1 and 7 under 35 U.S.C. 103 as being obvious in view of Happ U.S. Patent No. 2,487,706 and Bonzer et al. U.S. Patent No. 4,559,669. According to the Examiner, the combination of Happ and Bonzer et al. would result in a teaching of the instant invention. However, if Happ and Bonzer et al. were combined, then the resulting apparatus would suffer from a multitude of problems. In fact, the instant invention was designed in part to cure such problems.

The apparatus resulting from the combination of Happ and Bonzer et al. would have the casters disclosed in Bonzer et al. attached to side rails as disclosed in Happ. Such a combination would have a fundamental problem because of the circular cross-section of the side rails of Happ. That is, the connection of casters to circular cross-sectioned side rails would not be secure. For example, the mounting plate 13 disclosed in Bonzer et al. would facilitate attachment of the casters to the side rails. However, the mounting plate 13 would inherently have limited contact with the circular cross-sectioned side rails. The circular surface of the circular cross-sectioned side rail, and the substantially flat surface of the mounting plate 13 would prevent a substantial interface. The circular surface of the side rail would only contact the mounting plate 13 along its downward facing radial surface. Even though Bonzer et al. shows the mounting plate 13 attached to a planar surface of unit 11, the side rails of Happ would require substantial modification to provide such a planar surface. However, there is no suggestion to modify Happ in such a manner. As a result, the combination of Happ and Bonzer et al. only shows the limited interface between the downward facing radial surface of the side rail of Happ and the mounting plate 13 of Bonzer et al. Furthermore, no matter how secure the mode of connection, the circular surface would tend to "rock" on the flat surface of the mounting plate 13. Over time, such rocking action would break down the connection causing the casters to wiggle on the side rails.

Furthermore, the use of wheels that are hemispherical or semi-elliptical in cross-section would exacerbate the aforementioned rocking action. For example, hemispherical or semi-elliptical cross-sectioned wheels are by their nature unstable. These wheels are designed to have limited contact with a floor's surface to prevent unwanted friction. As a result, hemispherical or semi-elliptical cross-sectioned wheels have a tendency to tip in a direction perpendicular to their rotation. Therefore, the combination of the rocking action of the connection between the mounting plate 13 and the circular cross-sectioned side rail, and the tipping moment of the hemispherical or semi-elliptical cross-sectioned wheels would eventually destroy the security of the connection between the casters and side rails.

In fact, the prior art teaches that flat or rectangular cross-sectioned wheels are necessary to prevent the break down of the connection between the casters and circular cross-sectioned side rails. As in Happ, the rectangular cross-sectioned wheels are in substantial contact with the floor's surface preventing the occurrence of the tipping moment associated with hemispherical or semi-elliptical cross-sectioned wheels described above. As a result, the prior art teaches away from the instant invention by requiring rectangular cross-sectioned wheels having substantial contact with the floor's surface.

Unlike the prior art, the claimed shape of the side rails of the instant invention allows the use of hemispherical or semi-elliptical cross-sectioned wheels by providing a substantial interface between the surface of the side rails and the mounting plate 13, or, as in the instant invention, the bearing bracket. As a result, the rocking action discussed above is eliminated allowing the use of hemispherical or semi-elliptical cross-sectioned wheels. In addition, the shape of the side rails enables the casters to be fully positioned under and within the profile of the side rails. Unlike the apparatus resulting from the combination of Happ and Bonzer et al., the top of the mounting plate 13 or bearing bracket would not be exposed. As a result, the present invention eliminates the possibility that unwanted contact with the mounting plate 13 or bearing brackets would contribute to the rocking and tipping actions and cause the casters to break off the creepers.

In conclusion, the prior art teaches away from the instant invention by teaching that casters with rectangular cross-sectioned wheels should be used on creepers. As such, the prior art does not suggest the combination of a flat side rail with hemispherical or semi-elliptical cross-sectioned wheels. In fact, the instant invention produces an unexpected result by curing the problems inherent in the combination of the prior art references.

In view of the foregoing discussion, independent claim 1 has been amended to more fully define the side rails and to otherwise include some of the limitations of claim 7. Consequently, it is believed that independent claims 1 and 7 are in condition for allowance. This amendment, made after final rejection, is deemed appropriate inasmuch as it places this case in condition for allowance or in better condition for appeal. No new issues are presented because the amendments to claim 1 present similar limitations already in claim 7 and were necessitated by the new grounds for rejection. Reconsideration by the Examiner and the issuance of a Notice of Allowance of claims 1-13 and 16-19 is thus respectfully requested.

Attached hereto is a mark-up version of the changes made to the Application by this Amendment.

If any further issues remain after this amendment, a telephone call to the undersigned would be appreciated.

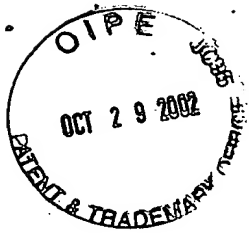
Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

- 1 1. (Twice Amended) A creeper comprising opposed side rails having a
2 planar bottom surface; a pad supported between said side rails; and a
3 plurality of caster assemblies rotatable on a vertical axis relative to said
4 side rails and supporting said side rails; each of said plurality of caster
5 assemblies attached to said planar bottom surface and fully positioned
6 under and within the profile of said side rails, and including a wheel
7 having a wheel body with a radial surface wherein the width of the
8 contact between said radial surface and a work surface upon which the
9 creeper is placed is from about 50 to about 75 percent of the maximum
10 width of said wheel body.
- 1 7. (Twice Amended) A creeper comprising opposed side rails; a pad
2 supported between said side rails; said side rails having a top and bottom
3 surface, said top surface tapering toward said bottom surface to define a
4 decreased cross section of said side rails, the decreased cross section of
5 said side rails being positioned adjacent said pad; and a plurality of
6 caster assemblies attached to and supporting said side rails; each of said
7 plurality of caster assemblies including a wheel including a wheel body
8 extending, in hemispherical or semi-elliptical cross section, from a hub,
9 and [a top bearing bracket] a top bearing bracket having a top race, said
10 top bearing bracket being attached to one of said side rails such that said
11 top race of said top bearing bracket lies wholly within the vertical profile
12 of said side rail.